

CLAIMS

What is claimed is:

1 1. A method for performing textured mapping of a target area, the method
2 comprising the steps of:
3 receiving input that defines a texture image; and
4 covering the target area in an aperiodic tiling pattern with tiles generated from
5 said texture image.

1 2. The method of Claim 1, wherein the step of receiving input that defines the
2 texture image includes the step of scanning one or more texture images into
3 memory.

1 3. The method of Claim 1, wherein the step of covering the target area includes the
2 steps of:
3 selecting an aperiodic tiling pattern;
4 generating a set of textured tiles based on said aperiodic tiling pattern; and
5 applying the textured tiles to the target area.

1 4. The method of Claim 3, wherein the step of applying the textured aperiodic tiles
2 to the target area includes the steps of:
3 covering the target area with one or more aperiodic tiles, wherein the one or more
4 aperiodic tiles are based on the aperiodic tiling pattern; and
5 mapping a corresponding textured tile to each of the one or more aperiodic tiles.

1 5. The method of Claim 3, wherein the step of applying the textured tiles to the
2 target area includes the steps of:
3 generating a tiling, wherein the tiling is associated with tiles based on said
4 aperiodic tiling pattern; and

5 covering the target area with said tiling; and
6 mapping the textured tiles to the tiles associated with said tiling.

1 6. The method of Claim 5, wherein the step of generating the tiling includes the
2 steps of:
3 determining a substitution tiling level; and
4 performing a tiling substitution based on said substitution tiling level to generate
5 said tiling.

1 7. The method of Claim 1, wherein the step of receiving input that defines the
2 texture image includes the step of generating the texture image using a computer
3 aided drawing program.

1 8. A computer-readable medium carrying one or more sequences of instructions for
2 performing textured mapping of a target area, wherein execution of the one or
3 more sequences of instructions by one or more processors causes the one or more
4 processors to perform the steps of:
5 receiving input that defines a texture image; and
6 covering the target area in an aperiodic tiling pattern with tiles generated from
7 said texture image.

1 9. The computer-readable medium of Claim 8, wherein the step of receiving input
2 that defines the texture image includes the step of scanning one or more texture
3 images into memory.

1 10. The computer-readable medium of Claim 8, wherein the step of covering the
2 target area includes the steps of:
3 selecting an aperiodic tiling pattern;
4 generating a set of textured tiles based on said aperiodic tiling pattern; and
5 applying the textured tiles to the target area.

1 11. The computer-readable medium of Claim 10, wherein the step of applying the
2 textured aperiodic tiles to the target area includes the steps of:
3 covering the target area with one or more aperiodic tiles, wherein the one or more
4 aperiodic tiles are based on the aperiodic tiling pattern; and
5 mapping a corresponding textured tile to each of the one or more aperiodic tiles.

1 12. The computer-readable medium of Claim 10, wherein the step of applying the
2 textured tiles to the target area includes the steps of:
3 generating a tiling, wherein the tiling is associated with tiles based on said
4 aperiodic tiling pattern; and
5 covering the target area with said tiling; and
6 mapping the textured tiles to the tiles associated with the tiling.

1 13. The computer-readable medium of Claim 8, wherein the step of receiving input
2 that defines the texture image includes the step of generating the texture image
3 using a computer aided drawing program.

1 14. The computer-readable medium of Claim 12, wherein the step of generating the
2 tiling includes the steps of:
3 determining a substitution tiling level; and
4 performing a tiling substitution based on said substitution tiling level to generate
5 said tiling.

1 15. A system for performing textured mapping of a target area, the system
2 comprising:
3 a display screen;
4 a target area on said display screen;
5 memory storing a textured image; and

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Sub
a3

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a4

6 a plurality of texture tiles generated from said texture image and arranged on said
7 screen display in an aperiodic pattern that substantially covers said target
8 region.

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C1

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e1

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